



June 21, 2016

Federal Communications Commission  
Mrs. Marlene Dortch, Secretary  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

RE: Letter in Response to RM-11681 Petition for Rulemaking: Ligado's Request to Allocate the 1675-1680 MHz Band for Terrestrial Mobile Use Shared With Federal Use

Timely Hydrologic

Information

Protects Lives,

Property, and

the Environment

Dear Ms. Dortch:

The National Hydrologic Warning Council (NHWC) has significant concerns regarding the Federal Communications Commission's (FCC) plan to share 1675-1680 MHz radio spectrum that specifically includes the Geostationary Orbiting Environmental Satellites (GOES) and the forthcoming GOES-Series-R satellites between a new terrestrial broadband wireless provider venture and long established government meteorological and hydrological providers. Ground receiving stations reliant on this real-time data are operated and funded by the U.S. Geological Survey (USGS), the U.S. Army Corps of Engineers, the U.S. Bureau of Reclamation, and many regional, state and local water resources and flood control agencies. Virtually all of our local and regional members partially or fully fund USGS gages and collaborate with the USGS before, during, and after flood events. In addition, the National Weather Service (NWS) relies heavily on this data to perform their river forecasts and make their warning decisions. Most communities in the U.S. depend on the NWS to issue warnings of potential impacts. Therefore, we urge the FCC to:

1. designate adequate protection zones around USGS and other federal, state, and local hydrometeorological downlink sites;
2. provide protection and priority for the GOES and future GOES-R satellite downlink 1675-1680 MHz spectrum band;
3. require a "prove-it-will-work" period of several years showing that high-power commercial wireless service systems can safely co-occupy the nationally critical hydrometeorological spectrum without interrupting GOES downlink services; and
4. require a clear and fair process between the wireless service companies and the impacted federal and non-federal agencies for resolving spectrum use conflicts when they arise.

We understand that simple filtering is no longer an option to mitigate the interference effects of a strong commercial transmitter using the same frequency as the Data Collection System (DCS) satellite downlink signal. Engineers indicate that the signal strength of the proposed terrestrial commercial transmitter is over a million times stronger than a DCS downlink to an earth system station, which can

**National Hydrologic  
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June 21, 2016  
Federal Communications Commission  
Marlene H. Dortch  
Page 2

cause DCS receiver electronics to function improperly. Such a clear risk of significant interference to DCS users, who range across multiple areas of the economy and public safety functions, in addition to our flood and hydrologic warning industry, is simply not acceptable.

The NHWC membership includes approximately 80 state, regional, and local jurisdictions, and flood warning system support companies<sup>1</sup>, that serve over 30 million people in some of our nations most populous and flood prone areas. NHWC is a trusted authority in public safety with a reputation of helping communities recognize flood threats and other water-related hazards in time to take appropriate defensive measures to protect lives and property. With flooding being the highest risk hazard in the U.S., with average flood damages of \$8 billion and 80+ deaths per year over the past 30 years (2014 dollars), NHWC members are attuned to the crucial nature of their work and the importance of the timeliness of the rainfall and streamgauge information they rely on. Attached is a letter for the record previously submitted to the FCC dated March 18, 2016 that expresses our concerns as a national organization in more detail.

The use of GOES and GOES-R Data Collection System information is critically important to all of our members. Citizens, emergency managers, and public officials need to understand the local weather conditions, water heights and flow in channels, rivers, lakes, etc. Real-time and near-real-time forecast weather and flood products are essential to the public and government officials that make decisions to minimize loss of life, injuries, property damage, school and business closures, and post-flood recovery time and costs.

Thank you for the opportunity to express our concerns on this important issue on behalf of the hydrologic warning community and the millions of citizens we serve.

Sincerely,

A handwritten signature in blue ink, which appears to read "Steve Fitzgerald".

Steve Fitzgerald, P.E.  
President, National Hydrologic Warning Council

SF:rg  
Attachment

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<sup>1</sup> The Federal agency members had no direct role in producing this letter.



June 21, 2016  
Federal Communications Commission  
Marlene H. Dortch  
Page 2

CC:

The Honorable John Thune, Chairman, Senate Commerce, Science and Transportation Committee

The Honorable Bill Nelson, Ranking Member, Senate Commerce, Science and Transportation Committee

The Honorable Marco Rubio, Chairman, Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard

The Honorable Cory Booker, Ranking Member, Subcommittee on Oceans, Atmosphere, Fisheries and Coast Guard

The Honorable Fred Upton, Chairman, House Energy and Commerce Committee

The Honorable Frank Pallone, Jr, Ranking Member, House Energy and Commerce Committee

The Honorable Greg Walden, Chairman, Communications and Technology Subcommittee

The Honorable Anna G. Eshoo, Ranking Member, Communications and Technology Subcommittee

The Honorable Jim Bridenstine, Chairman, Subcommittee on Environment, House Science, Space and Technology Committee

The Honorable Suzanne Bonamici, Ranking Member, Subcommittee on Environment, House Science, Space and Technology Committee

The Honorable John Fleming, Chairman, Subcommittee on Water, Power and Oceans, House Natural Resources Committee

The Honorable Jared Huffman, Ranking Member, Subcommittee on Water, Power and Oceans, House Natural Resources Committee

The Honorable Lawrence E. Strickling, Assistant Secretary for Communications and Information and NTIA Administrator, Department of Commerce

The Honorable Dr. Kathryn D. Sullivan, Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator

Lieutenant General Todd T. Semonite, Commanding General U.S. Army Corps of Engineers and Chief of Engineers

Director Suzette Kimball, United States Geological Survey

Commissioner Estevan López. U.S. Bureau of Reclamation

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